

General Practice Service
Willows Information Sheets

Hyperthyroidism





Hyperthyroidism

What is hyperthyroidism?

Hyperthyroidism is a disease that develops when the thyroid glands become overactive. In dogs and cats the two thyroid gland lobes lie on either side of the windpipe and produce thyroid hormone. This basically controls the speed at which the body's metabolism works. In the case of overactive thyroid glands, where too much hormone is produced, the metabolism is working 'too fast', resulting in signs of disease. If left untreated, the condition will eventually prove fatal.

Hyperthyroidism is very common in middle-aged and older cats, but is very rare in dogs.

How do animals get hyperthyroidism?

Overactive thyroid glands are due to the presence of a tumour which may affect only one, or more commonly both, thyroid gland lobes. This tumour does not respond to the control mechanisms that usually keep the thyroid hormone level in check, but instead produces too much hormone. Fortunately the vast majority of cats with this condition have a benign tumour. Only very few cats are diagnosed with malignant cancer of their thyroid glands. To date we are not sure why so many cats seem to develop this disease as they get older. Various possibilities have been discussed but nothing has yet been proven.

In contrast to the situation in cats, dogs with hyperthyroidism usually have malignant cancerous growths, and these are generally difficult to treat.

What are the clinical signs of hyperthyroidism?

As thyroid hormone affects the whole metabolism, the entire well-being of the animal changes as the disease progresses. However, because its onset is often very gradual, the disease frequently goes unrecognised until it is in its more advanced stages and may be mistaken for signs of 'old age'.

The most common initial sign of hyperthyroidism is weight loss, usually accompanied by a normal or even increased appetite and sometimes by an increase in thirst. In its later stages, affected individuals can become hyperactive, restless or irritable and more vocal than usual. In a small percentage of cases, however, the opposite can happen (especially in dogs) – these patients become lethargic, have a decreased appetite and may also develop obvious swelling or pain in the neck or problems with swallowing.

Many affected cats stop grooming and have a matted and unkempt coat. Some animals develop vomiting and/or diarrhoea. High blood pressure can also develop.

Over time, changes will occur in other organs, leading ultimately to heart and/or other organ failure.

How is the disease diagnosed?

Vets often become suspicious about hyperthyroidism when older cats are presented with weight loss in spite of having a good appetite. Often the enlarged thyroid gland/s can be felt in the neck. In many cases examination by the vet will also reveal a very fast heart rate – too fast to be explained by nervousness or fear of being brought to the surgery.

In most cases the disease can be diagnosed with a simple blood test – the amount of thyroid hormone in the blood is measured and found to be too high. Usually at the same time a general blood profile is performed to see whether any other diseases can be detected –

this can be important not only for the treatment, but also for the long term prognosis (outlook).

Occasionally the blood test does not show a clear result – usually this happens in the early stages of the disease or if a cat is affected by other diseases as well as hyperthyroidism. In such cases further blood tests or other diagnostic tests such as radiography (X-rays) or an ultrasound scan may be necessary to find out exactly what is going on. In dogs, further tests are always necessary to assess the possible spread of the tumour to other sites in the body. Unfortunately in most canine cases the tumour has already spread elsewhere by the time the diagnosis is made.

Can hyperthyroidism be treated in cats?

Although the disease almost exclusively affects older cats and despite the fact that the clinical signs of hyperthyroidism can be quite dramatic, it is usually a very manageable disease – treated cats can have a normal quality of life and a normal life expectancy.

The initial treatment for affected cats is medication (in the form of tablets) which is aimed at reducing the thyroid hormone level. It usually takes two to three weeks for the medication to result in a significant effect – after this period of time the blood tests are repeated to check the thyroid hormone level. In some cases the dose of medication needs to be higher or lower than the average dose before the thyroid hormone level normalises. Other blood values are also re-checked to make sure that other organs – especially the kidneys – are working normally. Sometimes other disease processes, especially chronic kidney disease, are revealed only when the metabolism slows down to normal after treatment has been started.

After initial stabilisation of the thyroid glands three treatment options can be discussed:

- 1) Long-term management may be possible with continued tablet administration. Treatment has to be life-long because the medication reduces the thyroid hormone production, but does not cure the disease. As many cats seem to take the tablets readily, this is often a good option especially in very old cats and cats with other conditions, such as kidney or heart disease. As the dose required to control the problem can change over time, regular blood tests are necessary.

Side-effects of the tablets are uncommon, but possible. Vomiting and diarrhoea are occasionally observed and, rarely, cats can develop skin problems, liver problems or changes in their blood cells. In these cases, medication has to be stopped and another treatment option discussed.

- 2) Surgery to remove the enlarged thyroid gland/s can produce a permanent cure and is a good option in cats with no other, or not very severe, concurrent disease.

The thyroid hormone level needs to be within the normal range before the operation is performed, to make sure that the anaesthetic risk is not unnecessarily high. Generally, this is a very successful procedure, although very occasionally hyperthyroidism can develop again at a later date if previously unaffected thyroid tissue which has not been removed becomes diseased.

Surgery can sometimes interfere with the parathyroid glands that control the blood calcium levels. These small glands lie next to the thyroid gland. If both thyroid gland lobes are removed, the blood calcium levels need to be monitored for at least three days after the surgery.

- 3) Radioactive iodine therapy is another treatment option that cures the thyroid disease in the majority of cases. Even though radioactive material (iodine) is used, the therapy is actually very safe for the cat because radioactive iodine is only taken up by the thyroid gland and no other body tissue. Despite this, the cat undergoing treatment needs to stay in a controlled environment for about three weeks to make sure that humans or other pets are not exposed to the radioactivity. As a result, this treatment is only available in a few licensed referral centres which provide the required facilities. We are happy to discuss this further and refer your cat to one of these centres if you are interested in this treatment option.

Can hyperthyroidism be treated in dogs?

Dogs with this disease are usually diagnosed with a cancerous growth, and treatment is much more difficult than it is in cats. If possible, the enlarged thyroid gland is removed. Various additional treatments, such as chemotherapy or radiotherapy, can be considered in an attempt to control the disease.

My cat has hyperthyroidism - what is the outlook?

Cats which suffer only from hyperthyroidism without any other problems usually have a good outlook. Several effective treatment options are available (see above) and these can be tailored to an individual cat's and owner's needs. If medication is used to control the disease it has to be given for life, but most cats adapt to this very well.

Cats which suffer from both hyperthyroidism and other disease/s have a more guarded outlook – depending on the other disease/s they are suffering from. Nonetheless, it is usually possible, with appropriate management, for cats with multiple diseases to be given a good quality of life, hopefully for a long period of time.

My dog has got hyperthyroidism, what is the outlook?

Because a cancerous growth is found in most dogs with hyperthyroidism, treatment is often only aimed at giving the dog a good quality of life for the near future rather than curing the disease. Unfortunately, in most cases the outlook is grave, but our aim is to keep affected dogs well and happy for as long as possible.

If you have any queries or concerns regarding your pet and hyperthyroidism, please do not hesitate to [contact us](#).

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